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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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MERCHANT & GOULD PC
P.O. BOX 2903
MINNEAPOLIS, MN 55402-0903

EXAMINER

FAULK, DEVONA E

ART UNIT PAPER NUMBER

2644

DATE MAILED: 09/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/634,228

Applicant(s)

MCCRACKIN ET AL.

Examiner

Devona E. Faulk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-12, 15 and 16 is/are rejected.
- 7) ☒ Claim(s) 6, 7, 13 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1,2,4,5,8,10-12, and 15** are rejected under 35 U.S.C. 102(b) as being anticipated by Dougherty (U.S. Patent 5,907,622).

3. Regarding **claim 1**, Dougherty discloses a circuit for controlling volume ramp-up of a sound masking signal comprising an input port for receiving an external volume control signal (122; Figures 1, 9; column 6, lines 60-65); a component for generating an internal volume control signal (120, Figure 1; 904; column 22, lines 38-65); a component for storing said internal volume control signal in a non-volatile memory (904H, 904L, 904M; column 19, lines 25-35; column 20, lines 46-48; column 22, lines 50-65); a component for generating said volume control signal based on said external volume control signal and said internal volume control signal (902, column 24, lines 4-11); and an output port for outputting a volume control signal to the sound masking system (Figure 9).

Regarding **claim 2**, Dougherty discloses further including a component for changing the level of said internal volume control signal over a range to a final level (324, Figure 3; column 13, line 43-47).

Regarding **claim 4**, Dougherty discloses wherein said component for generating an internal volume control signal comprises a component for setting the internal volume control

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signal to an initial setting and a component for changing the internal volume control signal in steps from said initial setting to a final setting (column 7, lines 8-21).

Regarding **claim 5**, Dougherty discloses wherein said final setting corresponds to a final volume setting for the sound-masking signal (column 9, lines 17-25).

Regarding **claim 8**, Dougherty discloses an input port for receiving an external signal (122; Figures 1, 9; column 6, lines 60-65); a controller having a component for generating an internal control signal (120, Figure 1; 904; column 22, lines 38-65); a non-volatile memory operatively coupled to said controller; said controller including a component for changing said internal control signal a component for storing said internal volume control signal in a non-volatile memory (904H, 904L, 904M; column 19, lines 25-35; column 20, lines 46-48; column 22, lines 50-65); said controller including a component for storing said internal control signal in said non-volatile memory; said controller including a component for changing said internal control signal, said controller including a component for storing said internal control signal in said non-volatile memory(902; column 24, lines 4-20); said controller including a component for generating a volume signal for controlling the volume of the sound masking output signal, said volume signal being based on said external signal and said internal control signal (902; column 24, lines 4-20); an output port coupled to said controller for outputting said volume signal to the sound making system (Figure 1, Figure 9).

Regarding **claim 10**, Dougherty discloses a method for ramping a sound masking output signal to a desired volume level in a sound masking system (Figure1, Figure 9; column , said method comprising the steps of inputting a volume signal from the sound masking system (column 6, lines 60-65) ; generating a control signal from an initial setting (column 6, lines 60-

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65); storing said control signal in non-volatile memory (column 19, lines 25-35; column 20, lines 46-48; column 22, lines 50-65); generating a volume output signal for the sound masking output signal, said volume output signal being based on said volume signal and said control signal (902, column 24, lines 4-11); outputting said volume output signal over a range in steps to a final value (Figure , Figure 9) .

All elements of **claim 11** are comprehended by claim 10 (column 324, Figure 3; column 13, line 43-47).

All elements of **claim 12** are comprehended by claim 11 (614; column 19, lines 38-37; column 20, lines 46-50).

Regarding **claim 15**, Dougherty discloses a sound masking system comprising a sound masking module for generating a sound masking system; a volume ramp-up circuit for ramping said sound masking signal from an initial volume setting to a final volume setting(122; Figures 1, 9; column 6, lines 60-65); said sound masking module having an output for a volume setting signal (Figure 1, Figure 9); said volume ramp-up circuit having an input coupled to said output for receiving said volume setting signal; said volume ramp-up circuit including a controller, said controller having a component for generating a control signal (120, Figure 1; 904; column 22, lines 38-65); said volume ramp-up circuit including non-volatile memory and said controller including a component for storing said control signal in said non-volatile memory (614; 904H, 904L, 904M; column 19, lines 25-35; column 20, lines 46-48; column 22, lines 50-65); said controller including a component for generating a volume ramp signal, said sound masking module being responsive to said volume ramp signal for setting a volume level for said sound masking signal (120, Figure 1; 904; column 22, lines 38-65).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 3,9,16** rejected under 35 U.S.C. 103(a) as being unpatentable over Claims 1,8, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Dougherty (U.S. Patent 5,907,622) in view of Jari et al. (U.S. Patent Application 2001/0020275).

Claim 3 claims the circuit of claim 1 or 2, further including a component for retrieving said internal volume control signal from said non-volatile memory in response to a power loss condition, and using said retrieved internal volume control signal to generate said volume control signal. As stated above apropos of claim 1, Dougherty meets all elements of that claim.

Therefore, Dougherty meets all elements of claim 3 with the exception of the claimed matter.

Jari teaches the concept of a controller retrieving data from a memory in the event of a power failure (See abstract). Thus it would have been obvious to one of ordinary skill in the art to use Jari's concept of retrieving data in the event of some power failure in order to restore and maintain the system.

Claim 9 claims the volume ramp-up circuit of claim 8, wherein said controller includes a component for reading said internal control signal from said non-volatile memory in response to a power loss, and said read internal control signal being used with said external signal to generate said volume signal. As stated above apropos of claim 8, Dougherty meets all elements

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of that claim. Therefore, Dougherty meets all elements of claim 9 with the exception of the claimed matter. Jari teaches the concept of a controller retrieving data from a memory in the event of a power failure (See abstract). Thus it would have been obvious to one of ordinary skill in the art to use Jari's concept of retrieving data in the event of some power failure in order to restore and maintain the system.

Claim 16 claims the sound-masking system of claim 15, wherein said controller includes a component for reading said internal control signal from said non-volatile memory in response to loss of power to said sound masking module or said volume ramp-up circuit, and said retrieved control signal being used with said volume setting signal to generate said volume ramp signal for said sound masking module. As stated above apropos of claim 15, Dougherty meets all elements of that claim. Therefore, Dougherty meets all elements of claim 16 with the exception of the claimed matter. Jari teaches the concept of a controller retrieving data from a memory in the event of a power failure (See abstract). Thus it would have been obvious to one of ordinary skill in the art to use Jari's concept of retrieving data in the event of some power failure in order to restore and maintain the system.

Claim Objections

6. **Claims 6,7,13 and 14** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 5,360,469 to Baron et al. discloses an apparatus for air filtration and sound masking.

U.S. Patent 6,188,771 to Horrall discloses a personal sound masking system.

U.S. Patent 5,208,866 to Kato et al. discloses an on-board vehicle automatic sound volume adjusting apparatus.

U.S. Patent 5,666,426 to Helms discloses an automatic volume control compensate for ambient noise variations.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devona E. Faulk whose telephone number is 703-305-4359. The examiner can normally be reached on 8 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on 703-305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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FORESTER W. ISEN
SUPERVISORY PATENT EXAMINER